feasibility of radial approach to high-speed rotational coronary atherectomy (HSRCA) due to various technical reasons. Thus further studies are needed to evaluate the feasibility of transradial approach to HSRCA.
**Methods:** We conducted a retrospective chart review of all patients who underwent HSRCA at our institution from January 2005 through December 2012 and collected demographic, clinical and procedural characteristics. The patients were divided into two groups based on transradial or transfemoral approach to HSRCA and outcomes were evaluated during the index hospitalization and 30 days after the procedure. The primary endpoint was the success rate of the approach, which was defined as successful completion of the procedure in achieving less than 30 % residual stenosis without crossing over to any alternative approach. Secondary endpoints were major access site bleeding, other access site vascular complications such as pseudoaneurysm or arteriovenous fistula, time to discharge in hours after the procedure, periprocedural myocardial infarction (MI), ischemic cerebrovascular accident (CVA) or transient ischemic attack (TIA), and all cause mortality.
**Results:** A total of 30 patients in the radial group and 21 patients in the femoral group underwent HSRCA on 33 and 24 lesions respectively. There were no significant differences in the baseline demographic, clinical characteristics and procedural characteristics between the two groups. The primary endpoint was achieved in 29 (97%) and 15 (71%) patients in the radial and femoral groups respectively (p=0.015). There were no differences between radial and femoral groups in regard to major access site bleeding (3% vs. 5%, p = 1.00) group), vascular complications (0% vs. 5 %, p = 0.41), time to discharge in hours (45.0 ± 32.1 vs. 68.8 ± 64.4, p= 0.21), periprocedural MI (7% vs. 0%, p = 0.50), CVA/TIA (3% vs. 0%, p = 1.00) and all cause mortality (3% vs. 5 %, p = 1.00) respectively.
**Conclusion:** Transradial approach is a feasible and equally safe alternative to transfemoral approach for HSRCA.

## CRT-170

### Radial and Femoral Percutaneous Coronary Intervention in an International Registry: Post-Hoc Analysis of the Deliver Study

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**Background:** DELIVER was a prospective, multicenter, all-comers registry to assess the deliverability of the Resolute Integrity™ zotarolimus-eluting stent (R-ZES). In-hospital clinical outcomes and resource utilization following radial and femoral access implantations are compared in a post-hoc analysis.
**Methods:** Patients undergoing percutaneous coronary intervention and deemed suitable for R-ZES implantation were enrolled and treated according to standard practice of the participating centers. The primary endpoint of the study was delivery success when R-ZES was used as the primary stent. Delivery success was defined as complete passage of the stent across the target lesion with full expansion of the stent to the desired diameter at the desired location. In-hospital clinical outcomes, procedural details, and resource utilization were collected. Target lesion failure (TLF) was the composite of cardiac death, target vessel myocardial infarction (MI), and clinically-driven target lesion revascularization. Procedural and in-hospital outcome comparisons of radial vs. femoral approach were adjusted using propensity scores.
**Results:** A high proportion of the population (n=7740 patients) had complex disease (71%; n=5490/7739), and the approach was radial in 46% (n=3564) and femoral in 53% (n=4128) of patients. The femoral group had significantly more patients who were female or had a prior MI, a prior coronary artery bypass graft, diabetes, renal insufficiency, or a history of hypertension (all p<0.001). The femoral group was also characterized by more complex lesion characteristics. Primary delivery success was high (98.9%, n=10617/10733 stents) and did not differ by approach (adjusted p=0.880). In-hospital clinical outcomes were low (TLF: 1.6%, n=122/7740) and did not differ by approach (adjusted p=0.275). Radial access was associated with lower hospital length of stay and procedure duration (both adjusted p<0.001), less contrast used (p=0.003), and fewer balloons and catheters used (adjusted p=0.010 and p<0.001).
**Conclusions:** R-ZES was found to be highly deliverable in a complex, all-comers, international population. DELIVER was not intended to compare R-ZES implantation access methods. The radial approach, however, was associated with lower resource utilization than the femoral approach after adjustment for differences in baseline characteristics.

## CRT-171

### The Transradial Coronary Interventions Reduce the Diameter of Radial Artery Measured by Quantitative Artery Analysis in Follow-up Angiography

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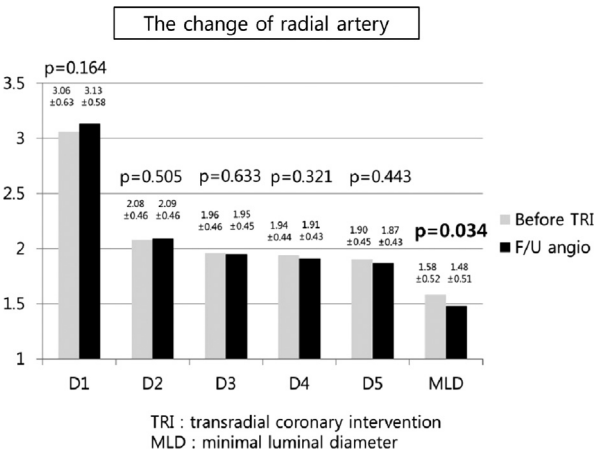
**Background:** The radial artery is currently regarded as a useful vascular access site for coronary procedures. But there is no known impact of transradial coronary intervention (TRI) regarding the change of radial artery diameter. There were no published data regarding the change of radial artery diameter by quantitative artery analysis after the TRI.
**Methods:** From June 2009 to September 2012, consecutive patients with normal Allen test underwent TRI and follow-up coronary angiography (FUCA) after TRI were enrolled. Retrograde radial artery angiography was performed before the transradial coronary procedure in all patients. We analyzed the radial images of initial angiography and FUCA. We divided radial artery from elbow to sheath tip into 5 parts (D1, D2, D3, D4 and D5) and analyzed radial artery diameter and minimal luminal diameter (MLD). The primary endpoint was the changes of radial artery diameter after TRI.
**Results:** Among total 613 patients underwent FUCA, 103 patients underwent FUCA via other site (femoral artery or opposite radial artery) and 189 patients had no images of radial artery or the difficulty to analysis due to poor images. Finally, total 321 patients underwent FUCA via same site were analyzed. Before TRI, initial MLD1 was 1.58±0.52 and diameters were 3.06±0.63, 2.08±0.46, 1.96±0.46, 1.94±0.44 and 1.90±0.45 (D11, D12, D13, D14 and D15). MLD2 of FUCA was 1.48±0.51 and diameters were 3.13±0.58, 2.09±0.46, 1.95±0.45, 1.91±0.43 and 1.87±0.43 (D21, D22, D23, D24 and D25). The changes of radial artery size were not significant statistically. (p>0.05) But the change of MLD was statistically significant. (MLD1 vs. MLD2 p=0.034).
**Conclusion:** The overall diameter of radial artery did not show significant changes after index TRI but TRI reduced MLD of the radial artery with statistical significance.




## CRT-172

### Coronary Angiography Performed Using Radial Artery Approach with El Gamal Catheter: Comparison with Judkins Catether

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**Background:** the El Gamal is a very flexible, precurved catheter, with gentle curve, tapered soft tip, with two little side holes and a bigger hole on its top. It is available in three sizes: 1-2-3 (® Cordis). The El Gamal is a universal catheter used to perform angiography of both right and left coronary. It allows: the use of a single catheter, reduction in time of fluoroscopy and in medium contrast, easily crossing of the vessel tortuosity and it doesn't cause important vasospasm.